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**PATENT**  
Attorney Docket No.: **KNAUTHE-09734**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Re Application of: Gabriele Multhoff Group No.:1615  
Serial No.: 10/526,586 Examiner:  
Filed: 12/12/2005  
Entitled: **Use of Granzyme B as an HSP70/HSP70 Peptide Dependent Inducer of Apoptosis in Tumor Cells**

**REQUEST FOR CORRECTION OF  
FILING RECEIPT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

**CERTIFICATE OF MAILING UNDER 37 CFR § 1.8(a)(1)(i)(A)**

I hereby certify that this correspondence (along with any referred to as being attached or enclosed) is, on the date shown below, being deposited with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date: February 9, 2006

By: 

Jasmine M. Stansberry

Sir or Madam:

The information shown on the attached Filing Receipt contains an error:

1. The Filing Receipt currently lists the title "Use Of Granme B As An HSP70/HSP70 Peptide Dependent Inducer Of Apoptosis In Tumor Cells". The correct title should be "**Use of Granzyme B As An HSP70/HSP70 Peptide Dependent Inducer Of Apoptosis In Tumor Cells**". (See attached copy of first page of Specification of Application and Incorrect Filing Receipt).

Applicant(s) hereby request(s) that the Filing Receipt be corrected accordingly.

Respectfully submitted,

Date: February 9, 2006

  
J. Mitchell Jones  
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APPL NO.	FILING OR 371 (c) DATE	ART UNIT	FIL FEE REC'D	ATTY.DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/526,586	12/12/2005	1615	1195	KNAUTHE-09734	9	24	5

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CONFIRMATION NO. 3810

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FILING RECEIPT



OC000000017939176\*

MEDLEN &amp; CARROLL

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 101 Howard Street  
 Suite 350  
 San Francisco, CA 94105

Date Mailed: 01/30/2006

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please mail to the Commissioner for Patents P.O. Box 1450 Alexandria Va 22313-1450. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

## Applicant(s)

Gabriele Multhoff, Munchen, GERMANY;

## Power of Attorney:

John Jones--44174

## Domestic Priority data as claimed by applicant

This application is a 371 of PCT/EP03/09341 08/22/2003

## Foreign Applications

EUROPEAN PATENT OFFICE (EPO) 020182846 08/23/2002

Projected Publication Date: 05/11/2006

Non-Publication Request: No

PRIOR ART STATEMENT DUE 3 MONTHS 5/23/05

Early Publication Request: No

FOREIGN FILING LETTER DUE

6 MONTHS UTILITY / 3 MONTHS DESIGN

\*\* SMALL ENTITY \*\*

FOREIGN FILING DEADLINE

12 MONTHS UTILITY / 6 MONTHS DESIGN

Title

TWENTY-ONE MONTHS SUSPENSE DATE 11/23/06*200*

Use of granme b as an hsp70/hsp70 peptide dependent inducer of apoptosis in tumor cells

**Preliminary Class**

514

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## Use of granzyme B as an Hsp70/Hsp70 peptide dependent 5 inducer of apoptosis in tumor cells

10 The present invention relates to a method of inducing or enhancing the expression of granzyme B in natural killer (NK) cells. The present invention relates also to a use of said NK cells for the preparation of a pharmaceutical composition for the treatment of tumors, viral or bacterial infections or inflammatory diseases. Further, the present invention relates to the use of granzyme B for the treatment of tumors, viral or bacterial infections or inflammatory diseases, wherein the tumor cells or the 15 cells affected by said infection or inflammation express Hsp70 on their cell surface.

A variety of documents is cited throughout this specification. The disclosure content of said documents is herewith incorporated by reference.

20 Elevated cytoplasmic levels of heat shock protein 70 (Hsp70) have been found to protect tumor cells against programmed cell death (Nylandsted et. al. (2000) Ann. N.Y. Acad. Sci. 926, 122). Hsp70 is the major stress inducible form of the heat shock protein family (HSP), which is primarily located in the cytosol. Evidence accumulated during recent years has demonstrated that extracellular localized and 25 plasma membrane-bound HSPs are highly immunogenic and expose the cells to immune attack (Schild et. al. (1999) Current Opinion in Immunology 11, 109). Following receptor-mediated uptake (Arnold-Schild et. al. (1999) J. Immunol. 162, 3757) and re-presentation by antigen presenting cells (APC), HSP-chaperoned peptides elicit a cytotoxic, CD8<sup>+</sup> T cell response (Suto et. al. (1995) Science 269, 30 1585). Several receptors, including CD91 and toll-like receptors 2 and 4 (TLR2/4),